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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|-------------|-----------------------|---------------------|------------------|
| 09/254,407 | 02/07/2000 | MICHAEL WILLIAM GRADY | 101713-5025 | 6913 |
| 28977 | 7590 | 09/10/2010 | | |
| MORGAN, LEWIS & BOCKIUS LLP | | | EXAMINER | |
| 1701 MARKET STREET | | | WHITE, EVERETT NMN | |
| PHILADELPHIA, PA 19103-2921 | | | ART UNIT | PAPER NUMBER |
| | | | 1623 | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 09/10/2010 PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/254,407

Applicant(s)

GRADY ET AL.

Examiner

EVERETT WHITE

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14, 15, 17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 11, 12, 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 10, 17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notices of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicants response filed July 2, 2010 has been received, entered and carefully considered. The response affects the instant application accordingly:
 - (A) Claims 13, 16, 18, 21 and 22 have been canceled; Claims 1-8, 11, 12, 14 and 15 are withdrawn from consideration.
 - (B) Comments regarding Office Action have been provided drawn to:
 - (I) 103(a) rejection, rendered moot by new ground of rejection over newly cited US Patent.
2. Claims 9, 10, 17, 19 and 20 are subjected to examination in the instant Office Action.

Claim Rejections - 35 USC § 103

New Ground of Rejection

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 9, 10, 17, 19 and 20 sare rejected under 35 U.S.C. 103(a) as being unpatentable over Okajima et al (US Patent No. 4,389,523) in view of Michaeli (US Patent No. 4,912,093).

Applicants claim a wound dressing comprising a synthetic sulfated polysaccharide, wherein the sulfated polysaccharide is selected from the group consisting of sulfated hydroxyethyl cellulose, sulfated carboxymethyl cellulose and sulfated oxidized regenerated cellulose, said synthetic sulfated polysaccharide being present in an amount sufficient to bind matrix metalloproteinases, and amended the claims to recite "wherein from about 3 to about 4 sulfate groups on each saccharide residue of said synthetic sulfated polysaccharide was converted from hydroxyl groups".

The Okajima et al patent teaches an anticoagulant cellulose sulfate with substitution degree of 0.8 to 2.6 (see column 3, lines 40-45) and optimization by increasing anti-coagulating property with increasing substitution degree (see column 4, lines 10-20). There is some overlap between 2.6 and "about 3" in view of the teaching of the Okajima et al patent of increasing substitution degree.

The instantly claimed invention differs from the Okajima et al patent by claiming that the wound dressing is in the form of solid complex with collagen.

Michaeli teaches wound healing properties of sulfated oligosaccharides and their use in combination with collagen.

One of ordinary skill in this art would also be motivated to combine the teaching of the Okajima et al patent with the teaching of the Michaeli patent since both documents disclose sulfated saccharides comprising medicinal properties.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the sulfated cellulose composition of the Okajima et al patent collagen in view of the recognition in the art, as evidenced by the Michaeli patent, that collagen exhibits beneficial effects in wound healing, such as by providing a matrix for cell migration and growth.

Summary

5. Claims 9, 10, 17, 19 and 20 are rejected; Claims 1-8, 11, 12, 14 and 15 are withdrawn from consideration as being directed to non-elected inventions.

Examiner's Telephone Number, Fax Number, and Other Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Everett White/
Examiner, Art Unit 1623

/Shaojia Anna Jiang/
Supervisory Patent Examiner, Art Unit 1623